

REMARKS

Claim 19 has been amended. Claim 20 has been canceled. No new subject matter has been introduced.

Claim Objections

Claim 19 has been amended to read more clearly by replacing “it” with “the inner stiffener”. Claim 20 has been canceled without prejudice.

Claim Rejections -35 USC 102

The claims have not been amended, since there are clear differences in the claimed subject matter over the disclosure in Malone (US 6,328,112).

Malone does not teach the configuration of claim 1, which recites that each add-on sector is provided with *“an associated inner stiffener penetrating into the portion of the production tube through at least one through orifice”*.

Examiner points to Figure 2, but this is concerned with an exploded diagram of a valve mechanism only, there is not shown any penetration of the inner stiffer into the production tube. Malone does teach at column 3 lines 8 to 15 how the frame 112 of the valve mechanism may be connected to a production tubing, but in both the described embodiments, there is not disclosed the claimed configuration of an inner stiffener penetrating into the production tube.

Indeed, the examiner does not explicitly identify what reference element in Malone is considered to be analogous to the claimed ‘inner stiffener’. It would appear this is the case since the valve of Malone does not have the structural configuration of the claimed invention.

Specifically, the claimed invention has an inner stiffener associated with an add-on sector that is configured to penetrate into the production tube, which prevents contact between the fluid (flowing through the valve) and the orifice in the production tube, thereby preventing erosion (see paragraph [0014] of the present application).

There is no such intention in Malone. Indeed, the exploded valve in Figure 2 shows a layered configuration, comprising disks 104 and 106, but these do not penetrate into other layers. Malone makes absolutely no disclosure of any penetration of any of the elements of the valve assembly of Figure 2 into the other layers, or more importantly, into the production tubing. Precisely because of this layered relationship, the fluid flow in the valve of Malone is still likely to contact the orifice in the production tubing causing erosion. Examiner draws attention to Malone at column 4 lines 49-54 that teaches prevention of erosion by manufacturing the disks 104, 106 and the seat 114 out of harder materials, but this is different from the claimed ‘penetrating’ arrangement that prevents contact at the interface between fluid and tube orifice. Specifically, since the claimed invention has inner stiffeners associated with the protective add-on sectors that penetrate into the production tubing, it is possible to prevent contact between the fluid and the orifice opening. Thus, the erosion is combated not though materials, but the claimed penetrating configuration.

Claim 1 is further distinguished in reciting “*at least one opening extending through the [add-on] sector and its associated inner stiffener*”. Malone teaches at column 3 lines 10-12 that the opening 102 in the seat 114 is aligned with a corresponding opening in the production tubing. Being aligned is clearly not the same as an inner stiffener penetrating into the production tubing and of having an opening extending through such a penetrating stiffener arrangement.

Claims 23 and 25 also recite these features and it is submitted that these claims are therefore allowable art for the same reasons.

Claim Rejections – 35 USC 103

Examiner asserts that the clamping ring arrangement of claims 14 and 15 are unpatentable over Malone in view of Gist (US 2,594,551).

Applicant disagrees and argues that the skilled person would not be motivated to turn to Gist, which is concerned with a different field in providing electrical insulation for downhole tubing, as compared to the flow valve technology of Malone and the present application.

Moreover, such a combination is not possible, since Gist discloses a configuration that is not physically compatible with Malone. Gist has centralizers (i.e. the purportedly add-on sectors) whose inner surface or bases are taught to be composed of a distortable insulating material. The insulating material is used to protect the production tubing from electrical forces (see first paragraph of column 1). However, the distortable insulating material is completely the opposite to and incompatible with, any ‘inner stiffener’ feature that Malone purportedly offers. Moreover, there is no orifice through the centralizers or insulation, since the purpose of Gist is exactly the opposite, i.e. to insulate. Thus, a skilled person would not obviously combine Malone and Gist, since these systems are physically incompatible.

Moreover, when combining prior art, the claimed subject matter of the present invention needs to be considered as a whole. The whole subject matter claimed is concerned with the clamped arrangement combined with the penetrating stiffener configuration, which offers ease of assembly or disassembly. Specifically, by the stiffener penetrating the production tubing, the add-on sectors are easily positioned on and around the production tubing where the clamped

arrangement fixes the elements in place with an effortless snap-fit action. However, this is not possible in the combination of Malone with Gist, since Gist requires a complex pin locking mechanism to combine with the spring bias offered by the insulating material to give a tight fit. Thus, the concept is wholly different from the present application.

It is therefore submitted that the present application is now in condition for allowance.

This paper is submitted in response to the Office Action dated August 13, 2008 for which the three-month date for response is November 13, 2008. A request for a one month extension of the time to respond to the Official Action is hereby made, bringing the date for response to December 13, 2008. Please apply any charges not covered, or any credits, to Deposit Account 50-2183 (Ref. No. 21.1056)

The Examiner is invited to contact the undersigned patent attorney at 281-285-3658 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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